REMARKS

Claims 1-36 are pending in the application, are rejected and are at issue

Applicant traverses the rejection of Claims 1-36 under 35 U.S.C. 102(b) as being anticipated by *Fries et al.* (U.S. 6,460,029 B1).

The claimed invention is directed to a method, apparatus and computer program product for searching a plurality of machine-readable information sources. A user's query or search string is mapped to multiple search terms. Searching of multiple information sources is performed using selected ones of the mapped search terms without needing to re-map the query or search string. Each search term is included in a vocabulary, which relates to one of the machine-readable information sources.

Fries is directed to a method and system for improving search text by locating an ambiguity in the search query that affects its optimization (Abstract and column 1, lines 65-67). As such, *Fries* relates to natural language processing (NLP) and features that are relevant to a NLP context. The claimed invention, on the other hand, relates to methods and systems for searching multiple machine-readable information sources, which is not inherently an NLP problem.

Claim 1 of the present application comprises the step of *mapping a search string to a plurality of search terms, wherein each search term relates to at least one of a plurality of machine-readable information sources*. The cited passage at column 2, lines 10-17 of *Fries* relates to generation of a logical search query from a free text search query. However, *Fries* fails to disclose mapping to search terms that each relate to at least one machine-readable information source that

may be searched. Rather, *Fries* discloses construction of a logical operator based on the parts of speech of two input terms (column 2, lines 15-17).

Claim 1 comprises the further step of *indicating at least one of the plurality of machine-readable information sources that each term relates to*. The cited passage at column 11, lines 1-12 and associated Figs. 11 and 12 of *Fries* relate to storage of NLP data for each term (column 10, lines 33-44). The NLP data comprises "semantic information about the terms" (column 11, lines 4-5), or characteristics of the terms. However, *Fries* is completely silent in relation to indicating machine-readable information sources that each term relates to. Specifically, semantic information does not constitute a plurality of machine-readable information source/s that may be searched. Fig. 10, in the present application, shows a screen shot of a plurality of search terms and at least one information source that each search term relates to (see items 1020 in Fig. 10).

Claim 1 comprises the further step of *searching at least one of the indicated machine-readable information sources using selected ones of the related search terms*. The cited passage at column 11, lines 41-48 of *Fries* discloses identification of possible search topics or broad categories of information that the search query is directed to. However, possible search topics and/or broad categories of information do not constitute machine-readable information sources that may be searched. *Fries* is silent firstly about searching at least one indicated machine-readable information source and, secondly, about searching at least one indicated machine-readable information source using selected ones of the search terms.

An anticipation rejection requires that the reference disclose each and every element of the claimed invention, arranged as in the claim. For the reasons discussed above, *Fries* does not

anticipate claim 1. Moreover, *Fries* does not relate to the invention of claim 1. Moreover, *Fries* does not suggest the invention of claim 1. Therefore, any obviousness rejection would also be improper.

Claims 2-11 depend from claim 1 and are believed allowable for the same reasons therefor, as well as the additional reasons described below.

Claim 3 comprises the steps of *indicating to the user which of the plurality of machine-readable information sources each of the search terms relates to* and *indicating to the user at least one vocabulary each of the search terms is included in, wherein each vocabulary relates one of the plurality of machine-readable information sources*. The cited passage at column 15, lines 21-34 of *Fries* relates to identifying possible search goals based on search terms that are new to the public vocabulary. The new search terms may be organized under topics in a list of indexed terms. However, *Fries* fails to disclose indicating to a user which particular machine-readable information source/s each search term relates to. Furthermore, *Fries* fails to disclose indicating to a user at least one vocabulary related to at a machine-readable information source that each search term is included in. Claim 3 is not anticipated or obvious for this reason as well.

Claim 4 comprises the further step of *enabling a user to select and de-select ones of the plurality of machine-readable information sources whereon the searching step is performed.* The cited passage at column 5, lines 30-43 of *Fries* relates to an "interactive web companion" that allows a user to select a search goal. The "web companion" then selects an appropriate search area and/or adjusts the user's search query based on the user's search goal. However, *Fries* fails to disclose

enabling a user to select and de-select machine-readable information sources to be searched. Claim 4 is not anticipated or obvious for this reason as well.

Claim 5 comprises the further step of *enabling a user to replace search terms with replacement search terms.* The cited passage at column 5, lines 44-63 of *Fries* discloses the "web companion" displaying suggestions to a user. Furthermore, *Fries* discloses the "web companion" adjusting a user's search query based on the user's search goal. However, *Fries* appears silent about enabling a user to replace search terms with user-selected replacement search terms. Claim 5 is not anticipated or obvious for this reason as well.

Claim 6 comprises the further step of *enabling a user to add further search terms to the plurality of search terms.* The cited passage at column 19, lines 30-39 of *Fries* discloses modification of a search query resulting from user selections made in response to web companion displays. In other words, the web companion modifies the search query rather than the user. Furthermore, the cited passage in *Fries* is silent about a user adding further search terms to an existing plurality of search terms mapped from a search string. Claim 6 is not anticipated or obvious for this reason as well.

Claim 7 comprises the further limitation that *each of the plurality of search terms is selected from a vocabulary of terms used in a related one of the plurality of machine-readable information sources.* The cited passage at column 15, lines 21-34 of *Fries* relates to identifying possible search goals based on search terms that are new to the public vocabulary. The new search terms may be organized under topics in a list of indexed terms. However, *Fries* fails to disclose a vocabulary of

terms each used in a (single) related machine-readable information source, from which the plurality of search terms is selected. Claim 7 is not anticipated or obvious for this reason as well.

Claim 8 comprises the further limitation that *the plurality of search terms are selected from a meta-vocabulary comprising a list of terms included in a plurality of vocabularies*. The cited passage at column 15, lines 21-34 of *Fries* relates to identifying possible search goals based on search terms that are new to the public vocabulary. However, *Fries* fails to disclose a plurality of vocabularies that each comprise terms used in a (single) related machine-readable information source, from which the plurality of search terms is selected. Claim 8 is not anticipated or obvious for this reason as well.

Claim 9 comprises the further limitation that *the plurality of machine-readable information sources comprises medical databases*. No passage in *Fries* has been cited to substantiate this rejection. *Fries* fails to disclose the limitation added by claim 9. Claim 9 is not anticipated or obvious for this reason as well.

Claim 10 comprises the further limitation that *the mapping step is performed once only for a particular search string*. The cited passage at column 2, lines 3-9 of *Fries* discloses retrieving a first search query from a user and storing the first search query for later redisplay to the user. However, *Fries* fails to disclose that mapping of a search string to a plurality of search terms, wherein each of the search terms relates to at least one machine-readable information source, is performed once only for that particular search string. Claim 10 is not anticipated or obvious for this reason as well.

Claim 11 comprises the further limitation that *the search string comprises a plurality of terms and that the mapping step comprises mapping each of the plurality of terms to a plurality of synonyms*. The cited passage at column 26, lines 30-45 of *Fries* fails to disclose that each term is mapped to a plurality of synonyms. Claim 11 is not anticipated or obvious for this reason as well.

Claim 34 comprises the step of *mapping a search string to a plurality of search terms, wherein each search term relates to at least one of said plurality of machine-readable information sources*. The cited passage at column 2, lines 10-17 of *Fries* discloses generation of a logical search query from a free text search query. However, *Fries* fails to disclose mapping of search terms relating to at least one of the plurality of machine-readable information sources that may be searched. Rather, *Fries* discloses construction of a logical operator based on the parts of speech of two input terms (column 2, lines 15-17).

Claim 34 comprises the further step of *searching at least one of the indicated machine-readable information sources using selected ones of the related search terms*. The cited passage at column 11, lines 41-48 of *Fries* discloses identification of possible search topics or broad categories of information that the search query is directed to. However, possible search topics and/or broad categories of information do not constitute a plurality of machine-readable information sources that may be searched. *Fries* is silent firstly about searching at least one indicated machine-readable information source and, secondly, about searching at least one indicated machine-readable information source using selected ones of the search terms. Claim 34 is not anticipated or obvious.

Claims 12 to 22 and 35 comprise apparatus claims that correspond generally to method claims 1 to 11 and 34, respectively. Claims 23 to 33 and 36 comprise computer program claims that

correspond generally to method claims 1 to 11 and 34, respectively. The arguments submitted hereinbefore in relation to claims 1 to 11 and 34 are thus also submitted in relation to claims 12 to 22 and 35 and claims 23 to 33 and 36, respectively. Thus, these claims are likewise not anticipated or obvious.

For the above reasons, the rejection of claims 1-36 is improper and ought be withdrawn.

The action includes a rejection of claim 4 as obvious over *Fries* in view of *Turtle et al.* U.S. Patent No. 5,418,948. However, the substantive rejection described limitations not included in claim 4. The rejection otherwise makes reference to dependent claims 9, 20 and 31. Applicant assumes that the rejection is, in fact, related to claims 9, 20 and 31.

Applicant traverses the apparent rejection of claims 9, 20 and 31 under 35 U.S.C. 103(a) as being unpatentable over *Fries et al.* (U.S. 6,460,029 B1), and in view of *Turtle et al.* (U.S. 5,418,948). Claims 9, 20 and 31 are patentable over a combination of *Fries* and *Turtle,* if such a combination is indeed proper, for at least the reason that claims 9, 20 and 31 are dependent on independent claims 1, 12 and 23, respectively.

For the above reasons, claims 9, 20 and 31 are believed allowable and withdrawal of the rejection is requested.

Summarizing, *Fries* is directed to improving search text by locating an ambiguity in the search query that effects its optimization. It does not relate to methods and systems for searching multiple machine-readable information sources. Therefore, the rejections are improper and the claims ought be allowed.

Reconsideration of the application and allowance and passage to issue are requested.

Respectfully submitted,

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Date: February 26, 2008

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